

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Unlicensed Operation in the TV Broadcast Bands)	ET Docket No. 04-186
)	
Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band)	ET Docket No. 02-380
)	

Appendix A to Comments of Shared Spectrum Company

MEASURED DATA

These spectrum occupancy measurements were made over a two-day period and covered the 30 MHz to 3000 MHz frequency range. The measurements were made back-and-forth between collection List A and collection List B for two 24 hour periods.

Long Duration Measurement Plan

Frequency List	List Measurement Time (sec)	Repetitions	Duration (sec)	Experiment Duration (hours)	Experiment Duration (sec)	Number of Measurements
A	5	40	200			5760
B	100	1	100			144
Total			300	12	43200	144

For each band, two measurement plots are shown. One was collected for a 22 hour duration from August 31 2004 4:30 pm to September 1 2004 2:30 pm, and other plot is for a 36 hour duration starting from September 1 2004 8:30 pm to September 3, 2004 2:18 am.

Each plot has three spectrum occupancy sub-plots. The upper sub-plot is the maximum power value versus frequency measured during the period. The power values are corrected for cable losses, filters and attenuators. The time shown on the plot is the measurement start time.

The middle sub-plot is a waterfall-type plot with occupancy plotted versus time and frequency. Occupancy is determined when the power level exceeds a threshold. The threshold value was hand-selected for each run, and is shown as a dotted line on the upper plot. In some

cases, the noise level exceeds the threshold, causing inflated occupancy levels. To correct this, the threshold would have to be hand-selected for each plot, which was not done.

The last sub-plot is the fraction of time the signal is on versus the frequency measured during the period. If the fraction of time is '1' it means the signal was on for all the measurement time and vice versa.

Spectrum Occupancy Plots

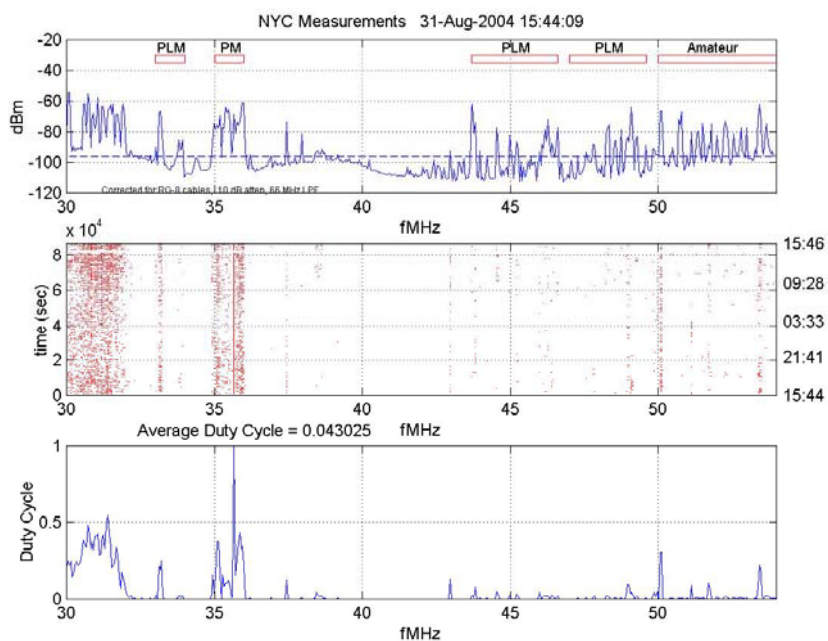


Figure 1: Day 1, 30 MHz – 54 MHz

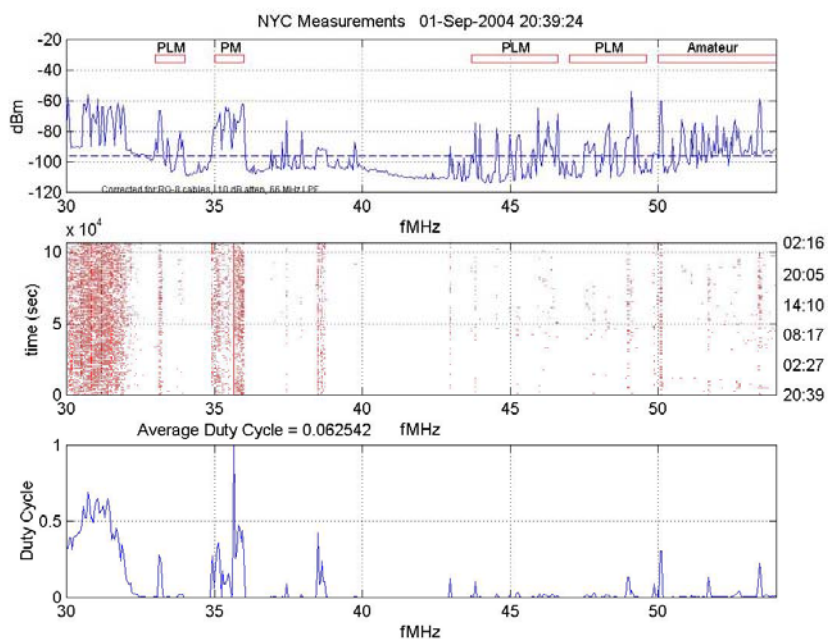


Figure 2: Day 2, 30 MHz – 54 MHz

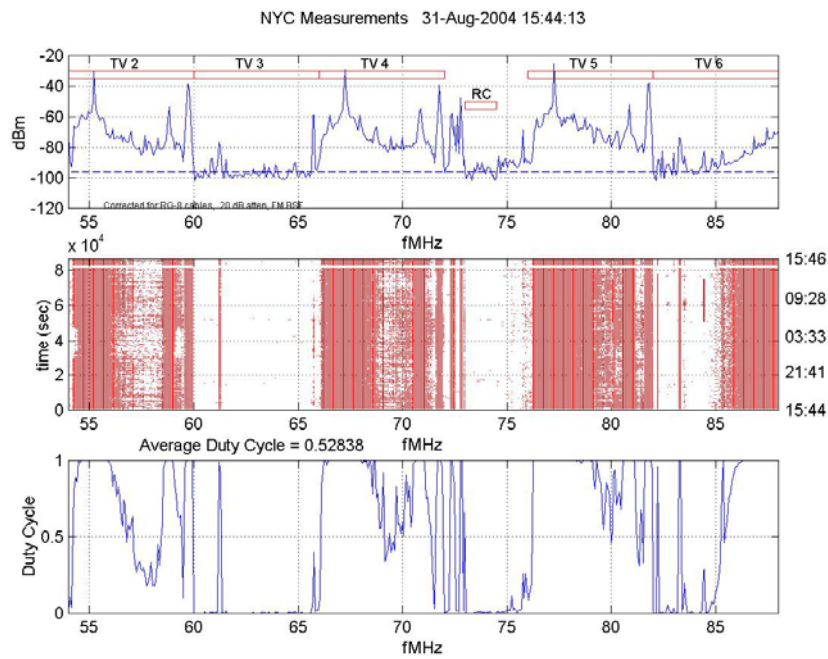


Figure 3: Day 1, 54 MHz – 88 MHz

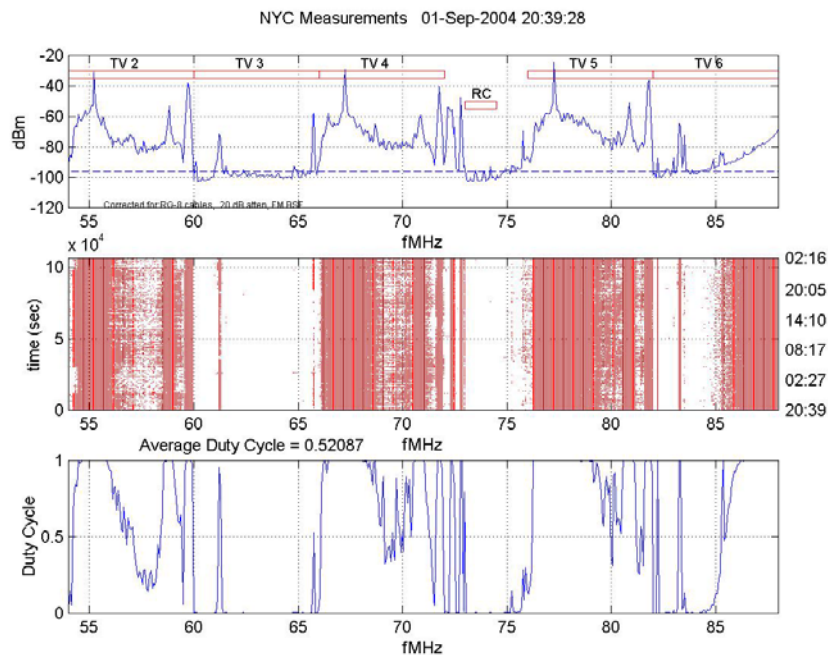


Figure 4: Day 2, 54 MHz – 88 MHz

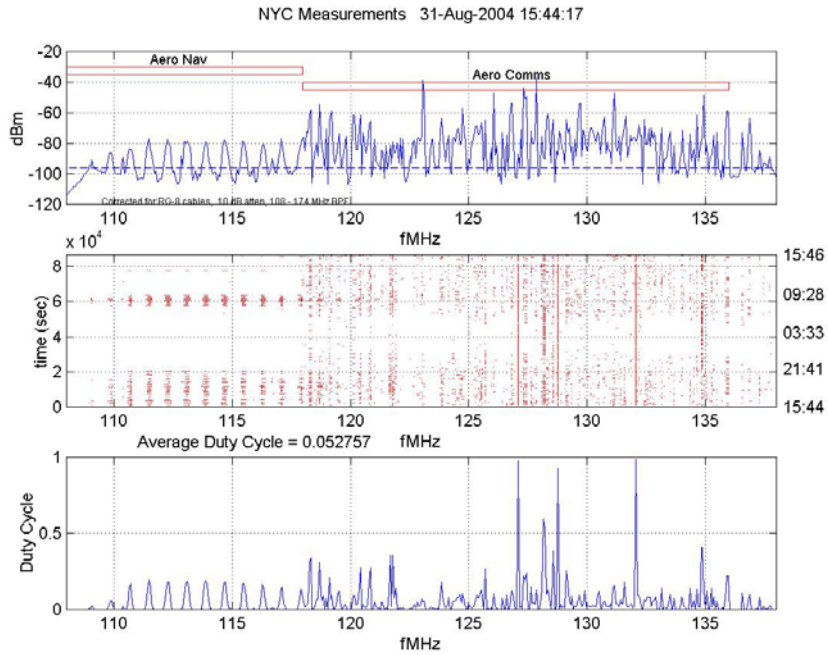


Figure 5: Day 1, 108 MHz – 138 MHz

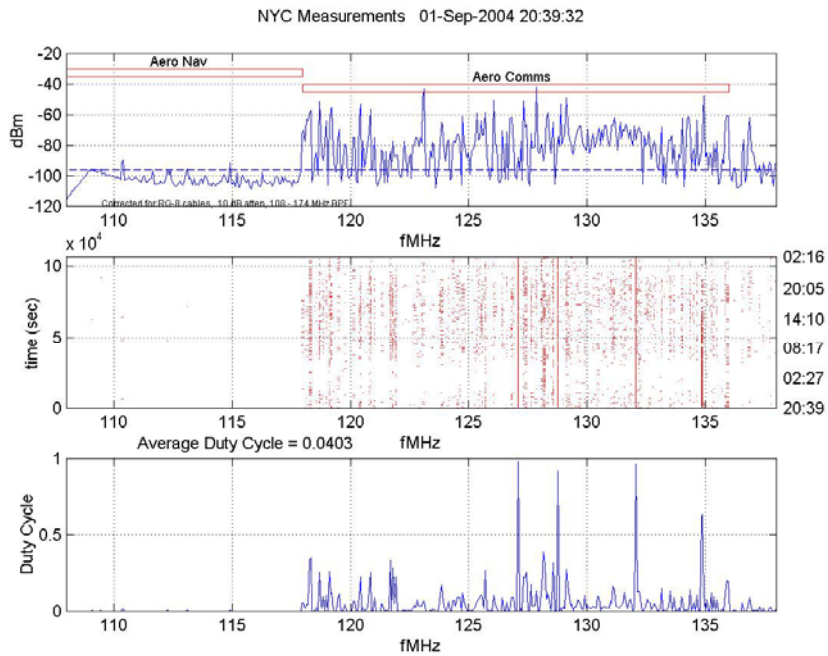


Figure 6: Day 2, 108 MHz – 138 MHz

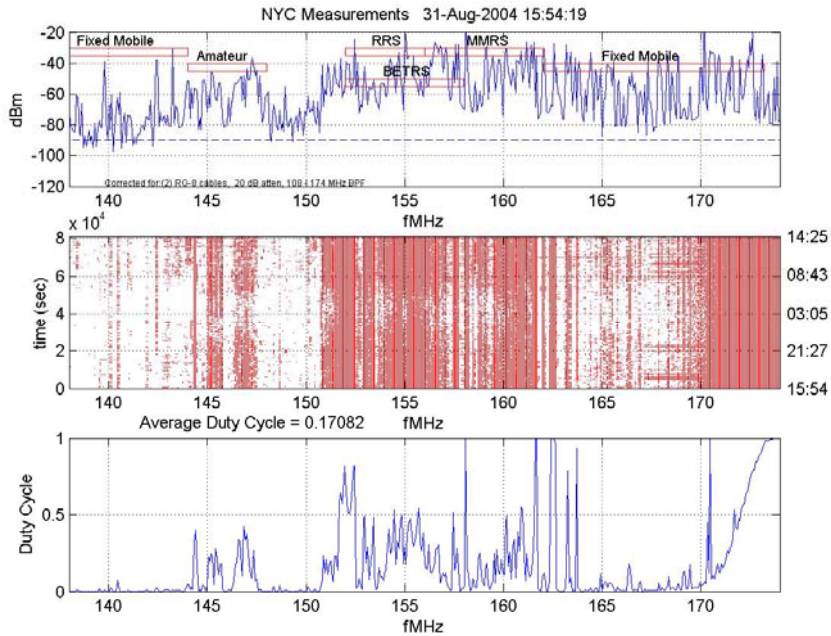


Figure 7: Day 1, 138 MHz – 174 MHz

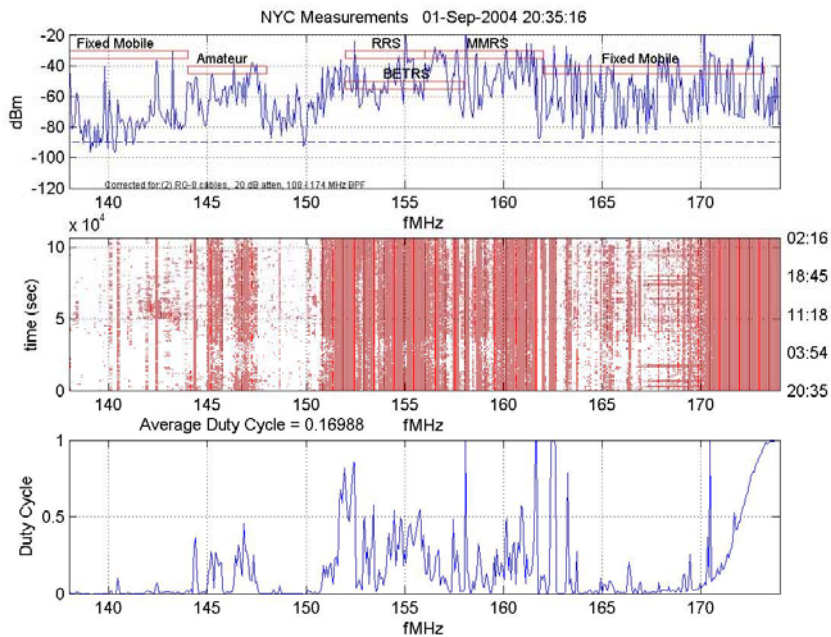


Figure 8: Day 2, 138 MHz – 174 MHz

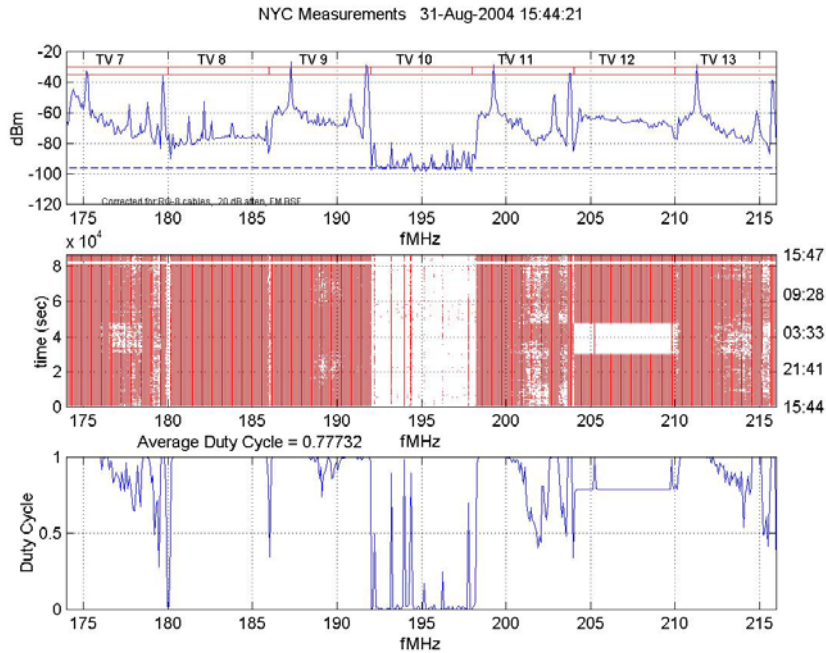


Figure 9: Day 1, 174 MHz – 216 MHz

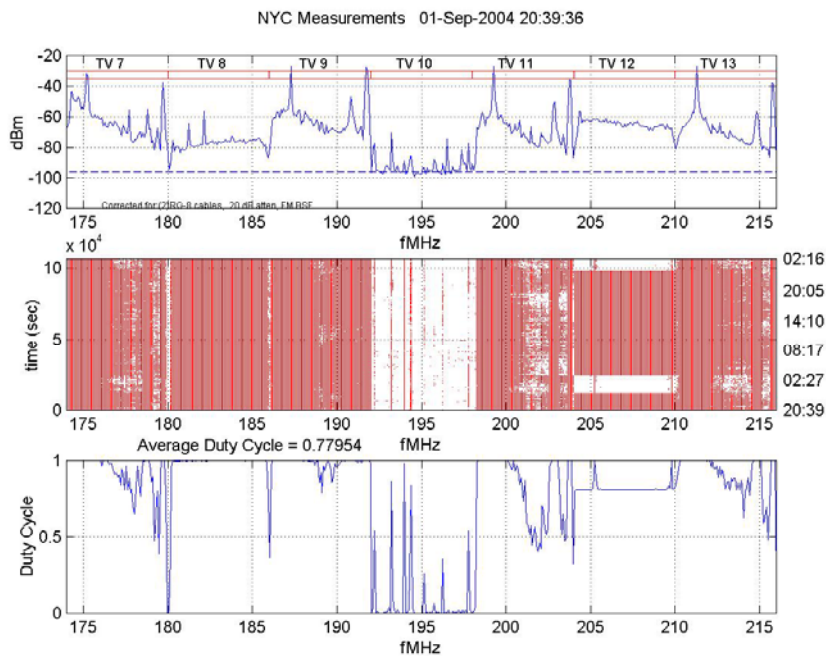


Figure 10: Day 2, 174 MHz – 216 MHz

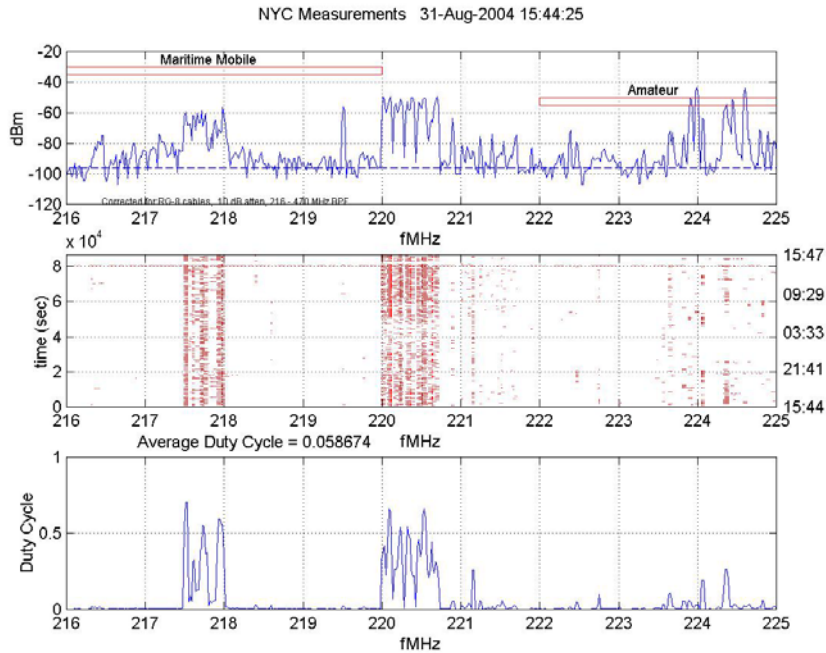


Figure 11: Day 1, 216 MHz – 225 MHz

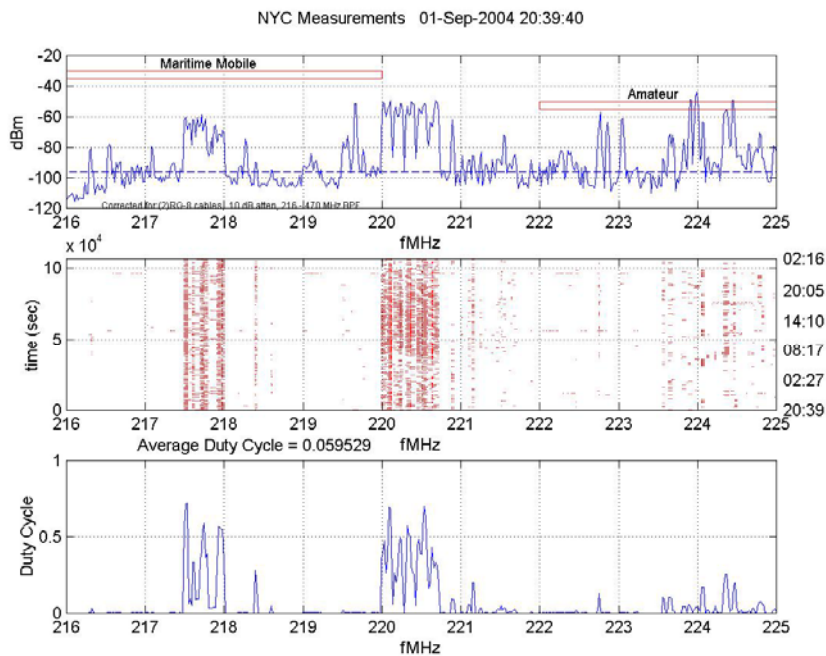


Figure 12: Day 2, 216 MHz – 225 MHz

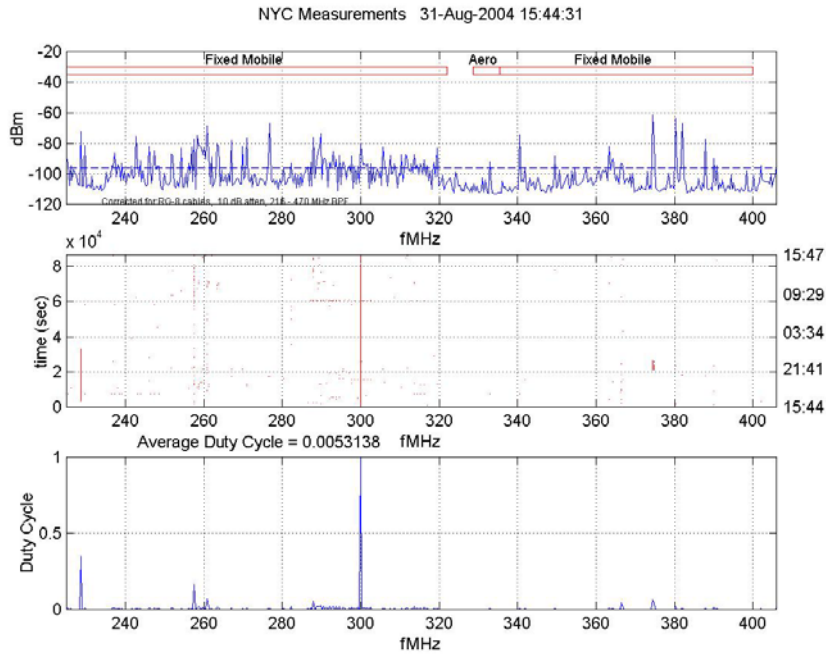


Figure 13: Day 1, 225 MHz – 406 MHz

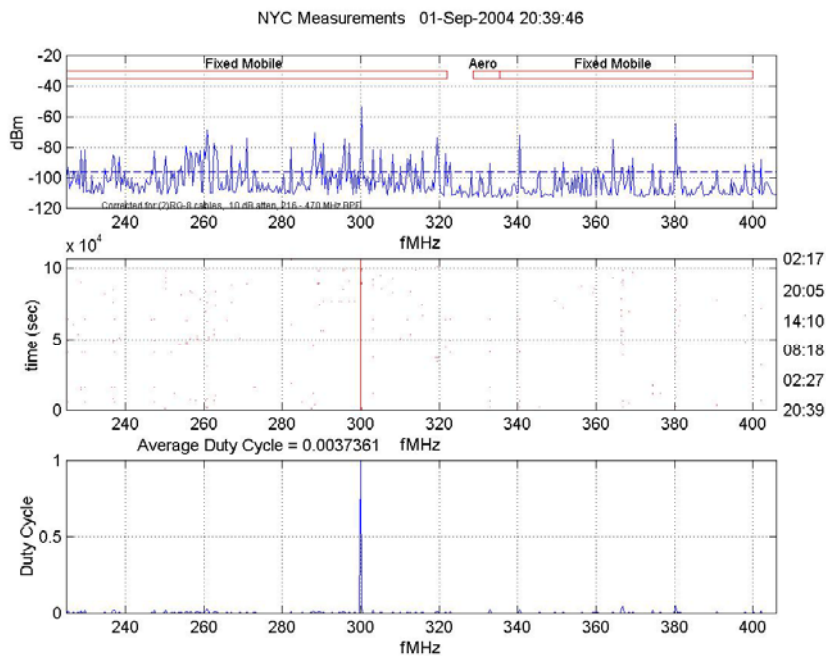


Figure 14: Day 2, 225 MHz – 406 MHz

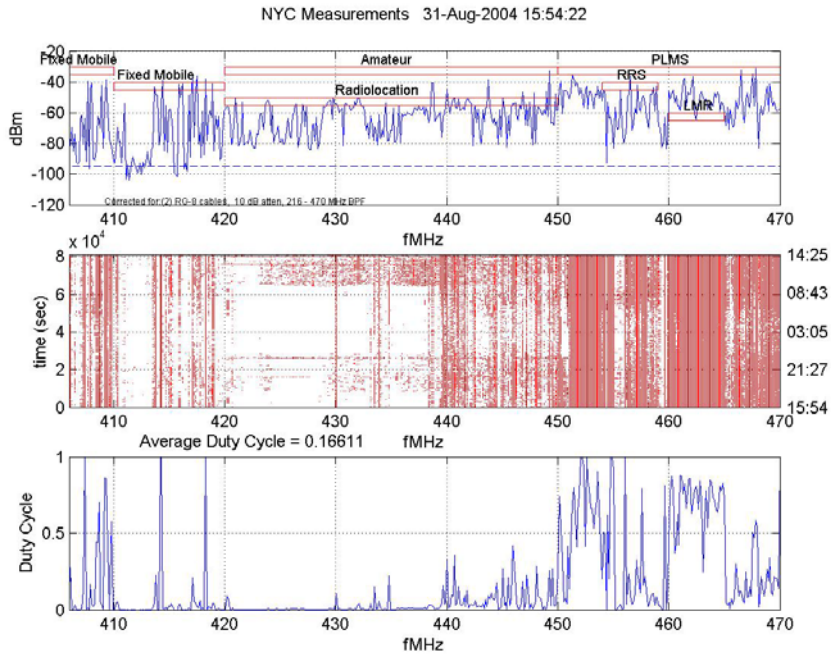


Figure 15: Day 1, 406 MHz – 470 MHz

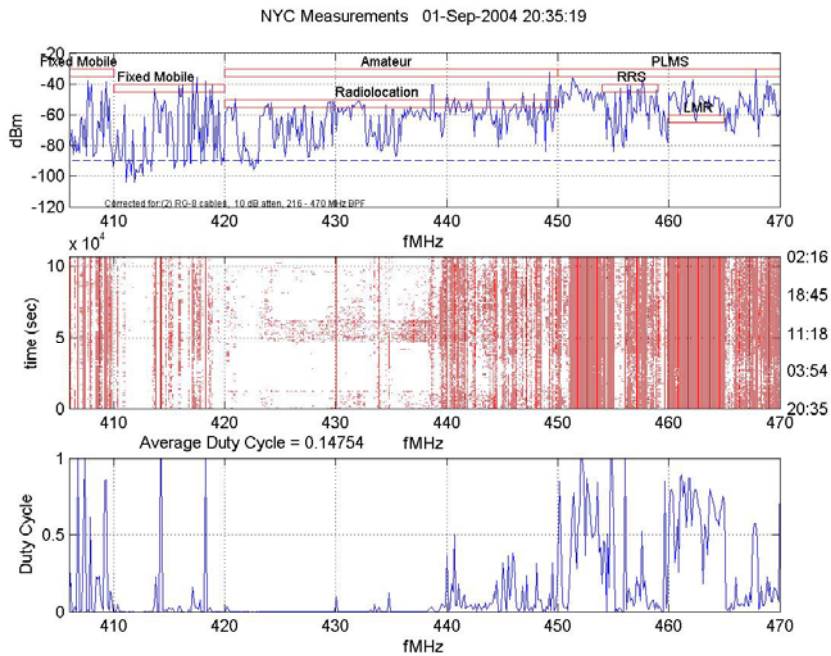


Figure 16: Day 2, 406 MHz – 470 MHz

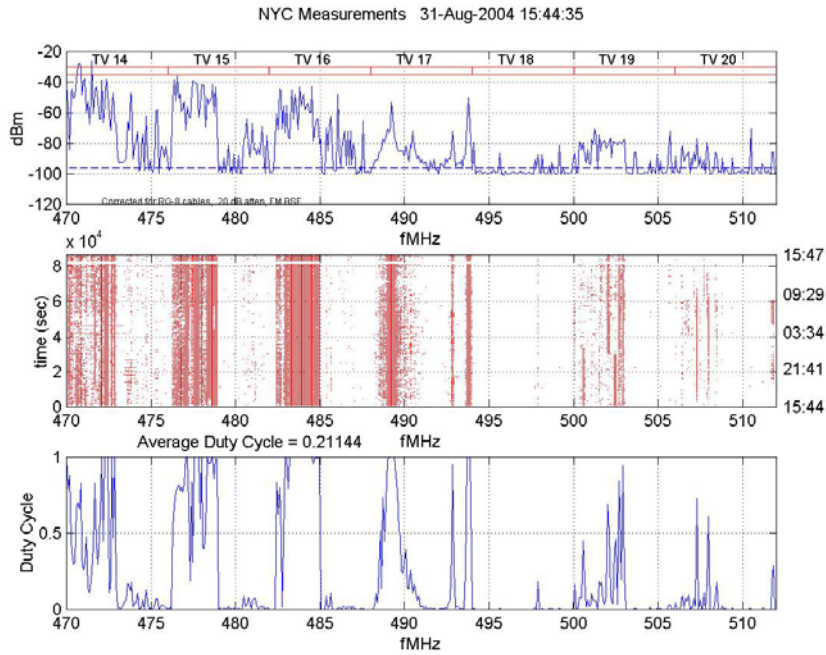


Figure 17: Day 1, 470 MHz – 512 MHz

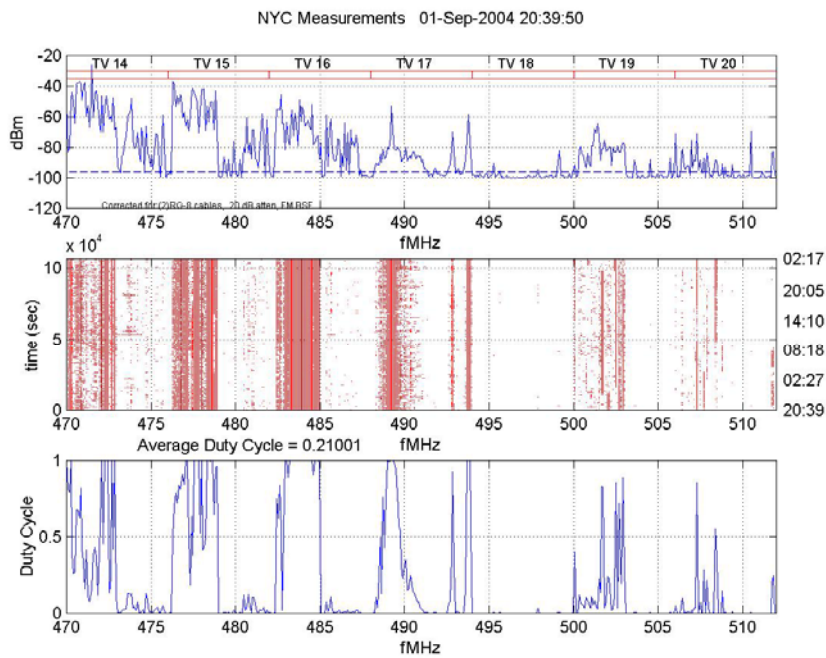


Figure 18: Day 2, 470 MHz – 512 MHz

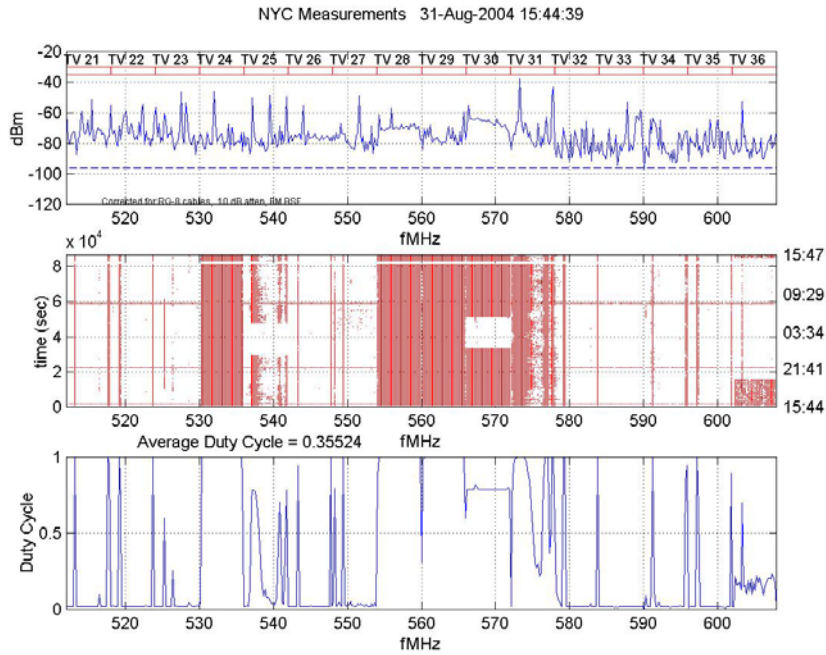


Figure 19: Day 1, 512 MHz – 608 MHz

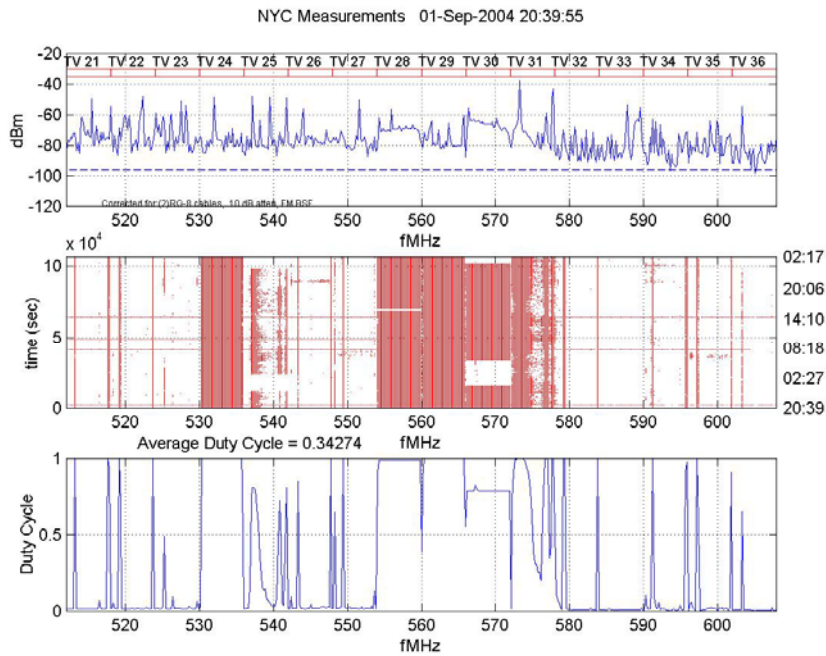


Figure 20: Day 2, 512 MHz – 608 MHz

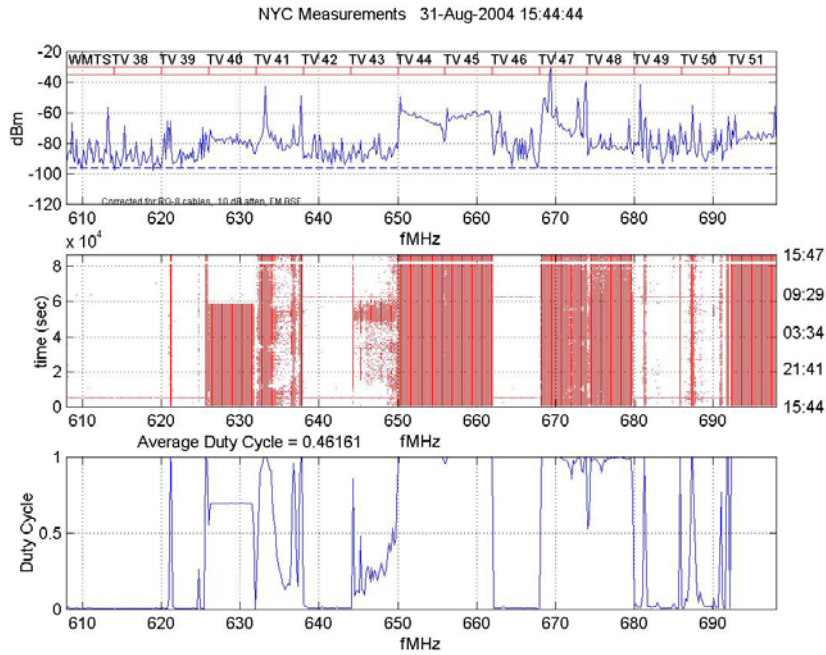


Figure 21: Day 1, 608 MHz – 698 MHz

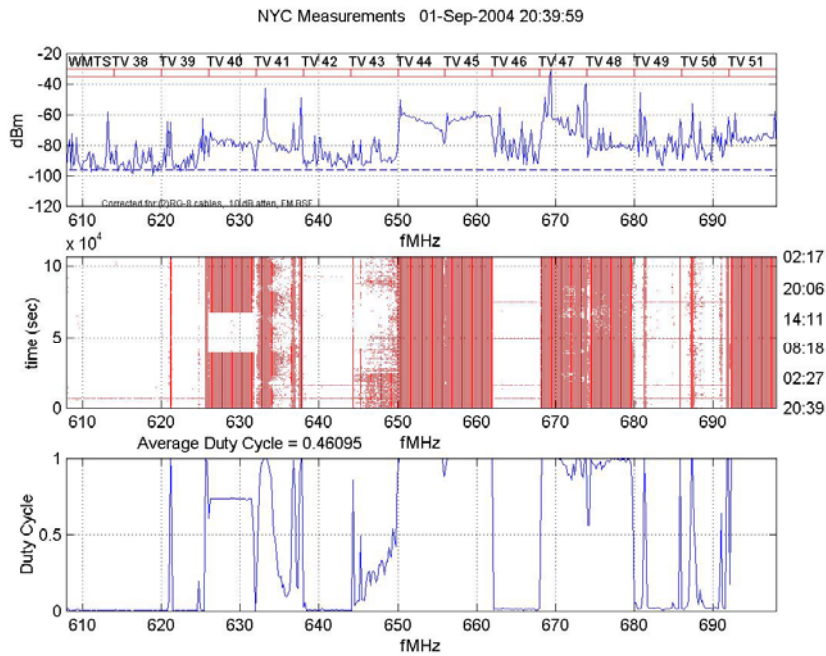


Figure 22: Day 2, 608 MHz – 698 MHz

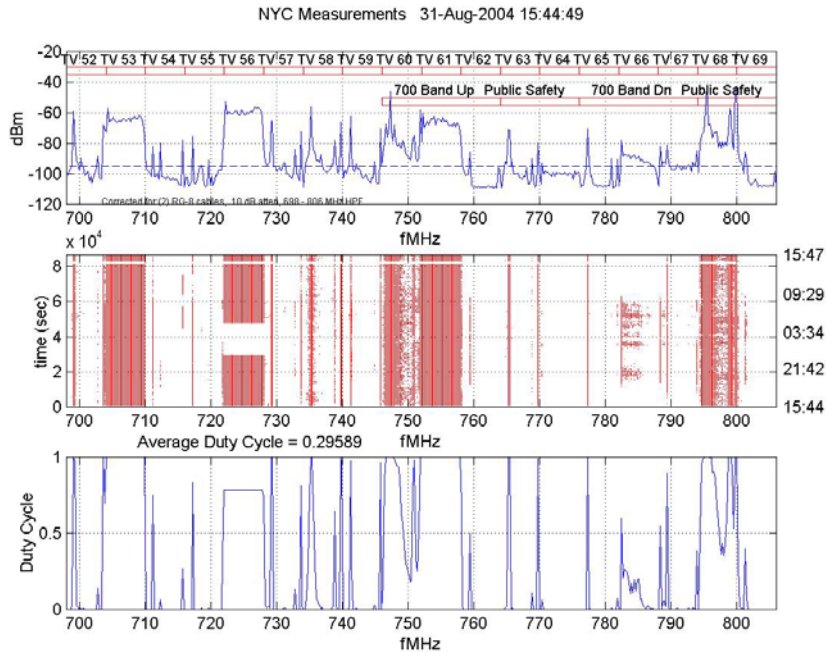


Figure 23: Day 1, 698 MHz – 806 MHz

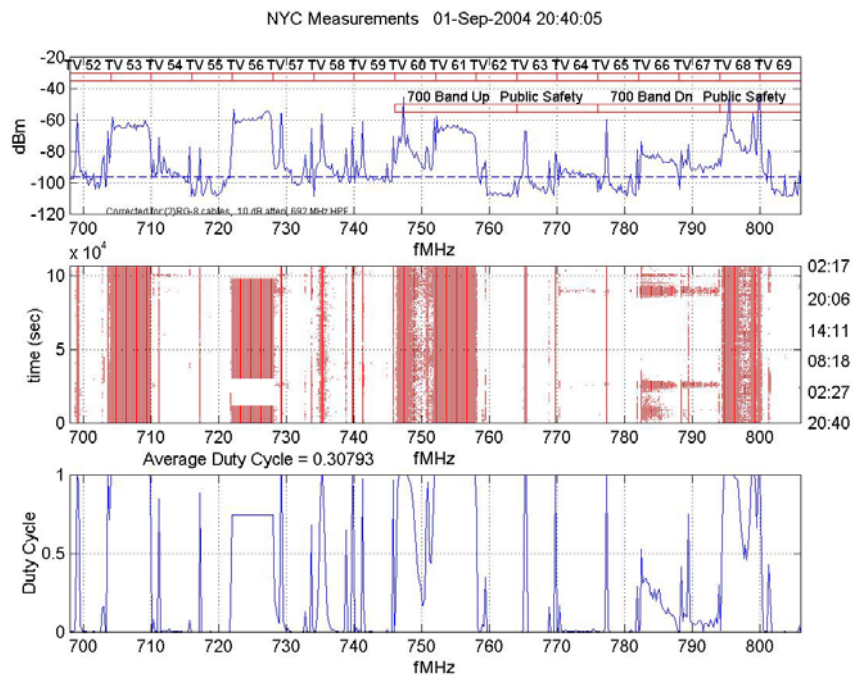


Figure 24: Day 2, 698 MHz – 806 MHz

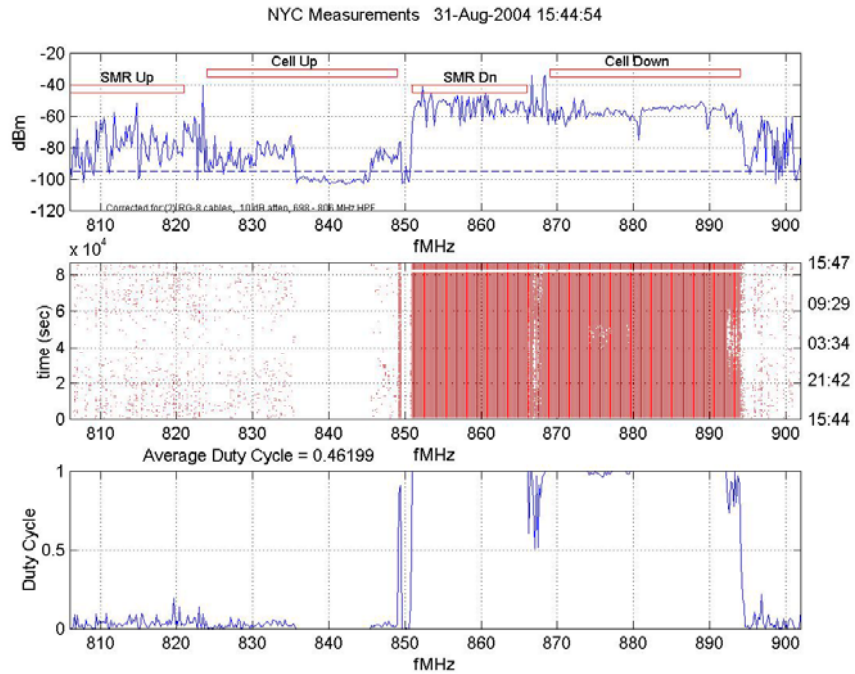


Figure 25: Day 1, 806 MHz – 902 MHz

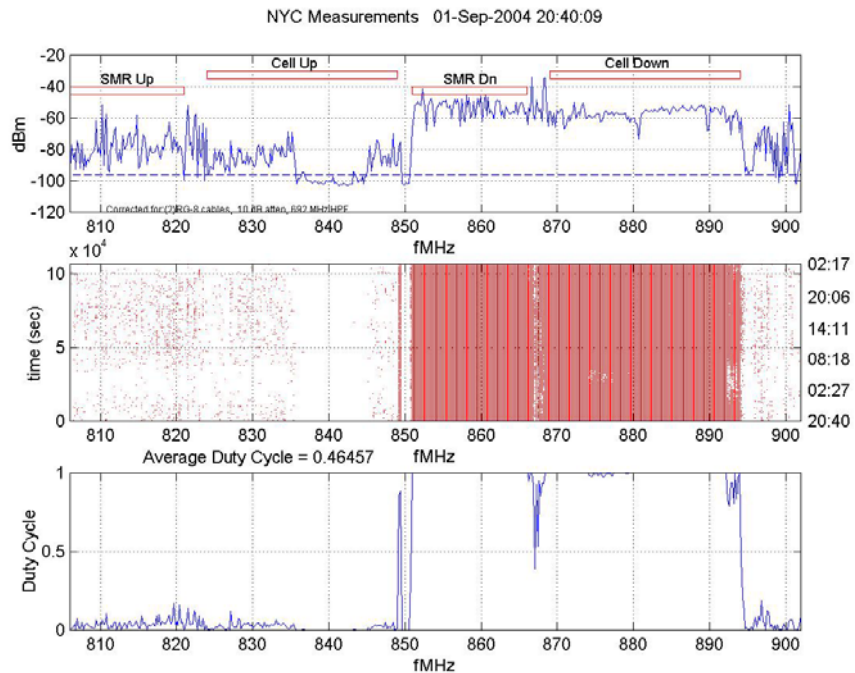


Figure 26: Day 2, 806 MHz – 902 MHz